SEQUENCE LISTING

I) GENERAL INFORMATION	1	GENERAL	INFORMATION
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- (i) APPLICANT: HIRANO, TOSHIO KAISHO, TSUNEYASU
- (ii) TITLE OF INVENTION: MEMBRANE PROTEIN POLYPEPTIDE HAVING PRE-B CELL GROWTH-SUPPORTING ABILITY AND A GENE THEREOF
- (iii) NUMBER OF SEQUENCES: 2
 - (iv) CORRESPONDENCE ADDRESS:
 - (A) ADDRESSEE: OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT,
 - (B) STREET: 1755 S. JEFFERSON DAVIS HIGHWAY, SUITE 400
 - (C) CITY: ARLINGTON
 - (D) STATE: VA
 - (E) COUNTRY: USA
 - (F) ZIP: 22202
 - (V) COMPUTER READABLE FORM:
 - (A) MEDIUM TYPE: Floppy disk
 - (B) COMPUTER: IBM PC compatible
 - (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 - (D) SOFTWARE: PatentIn Release #1.0, Version #1.30
 - (vi) CURRENT APPLICATION DATA:
 - (A) APPLICATION NUMBER: US 08/624,650
 - (B) FILING DATE: 22-MAY-1996
 - (C) CLASSIFICATION:
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: PCT/JP94/01732
 - (B) FILING DATE: 14-OCT-1994
- (vii) PRIOR APPLICATION DATA:
 - (A) APPLICATION NUMBER: JP 5-281622
 - (B) FILING DATE: 15-OCT-1993
- (viii) ATTORNEY/AGENT INFORMATION:
 - (A) NAME: OBLON, NORMAN F.
 - (B) REGISTRATION NUMBER: 24,618
 - (C) REFERENCE/DOCKET NUMBER: 7625-001-0 PCT
 - (ix) TELECOMMUNICATION INFORMATION:
 - (A) TELEPHONE: 703-413-3000
 - (B) TELEFAX: 703-413-2220
- (2) INFORMATION FOR SEQ ID NO:1:
 - (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 180 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

Met Ala Ser Thr Ser Tyr Asp Tyr Cys Arg Val Pro Met Glu Asp Gly

Asp Lys Arg Cys Lys Leu Leu Gly Ile Gly Ile Leu Val Leu Leu

Ile Ile Val Ile Leu Gly Val Pro Leu Ile Ile Phe Thr Ile Lys Ala

Asn Ser Glu Ala Cys Arg Asp Gly Leu Arg Ala Val Met Glu Cys Arg

Asn Val Thr His Leu Leu Gln Gln Glu Leu Thr Glu Ala Gln Lys Gly

Phe Gln Asp Val Glu Ala Gln Ala Ala Thr Cys Asn His Thr Val Met

Ala Leu Met Ala Ser Leu Asp Ala Glu Lys Ala Gln Gly Gln Lys Lys

Val Glu Glu Leu Glu Gly Glu Ile Thr Thr Leu Asn His Lys Leu Gln

Asp Ala Ser Ala Glu Val Glu Arg Leu Arg Arg Glu Asn Gln Val Leu 140 130 135

Ser Val Arg Ile Ala Asp Lys Lys Tyr Tyr Pro Ser Ser Gln Asp Ser 155

Ser Ser Ala Ala Pro Gln Leu Leu Ile Val Leu Leu Gly Leu Ser 170 175

Ala Leu Leu Gln

180

(2) INFORMATION FOR SEQ ID NO:2:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 996 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA to mRNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

(XI) DI	SOTHER PEC		2			
GTGGAATTCA	TGGCATCTAC	TTCGTATGAC	TATTGCAGAG	TGCCCATGGA	AGACGGGGAT	60
AAGCGCTGTA	AGCTTCTGCT	GGGGATAGGA	ATTCTGGTGC	TCCTGATCAT	CGTGATTCTG	120
GGGGTGCCCT	TGATTATCTT	CACCATCAAG	GCCAACAGCG	AGGCCTGCCG	GGACGGCCTT	180
CGGCAGTGA	TGGAGTGTCG	CAATGTCACC	CATCTCCTGC	AACAAGAGCT	GACCGAGGCC	240
CAGAAGGGCT	TTCAGGATGT	GGAGGCCCAG	GCCGCCACCT	GCAACCACAC	TGTGATGGCC	300
CTAATGGCTT	CCCTGGATGC	AGAGAAGGCC	CAAGGACAAA	AGAAAGTGGA	GGAGCTTGAG	360
GGAGAGATCA	CTACATTAAA	CCATAAGCTT	CAGGACGCGT	CTGCAGAGGT	GGAGCGACTG	420
AGAAGAGAAA	ACCAGGTCTT	AAGCGTGAGA	ATCGCGGACA	AGAAGTACTA	CCCCAGCTCC	480
CAGGACTCCA	GCTCCGCTGC	GGCGCCCCAG	CTGCTGATTG	TGCTGCTGGG	CCTCAGCGCT	540
CTCCTGCAGT	GAGATCCCAG	GAAGCTGGCA	CATCTTGGAA	GGTCCGTCCT	GCTCGGCTTT	600
TCGCTTGAAC	ATTCCCTTGA	TCTCATCAGT	TCTGAGCGGG	TCATGGGGCA	ACACGGTTAG	660
CGGGGAGAGC	ACGGGGTAGC	CGGAGAAGGG	CCTCTGGAGC	AGGTCTGGAG	GGGCCATGGG	720
GCAGTCCTGG	GTGTGGGGAC	ACAGTCGGGT	TGACCCAGGG	CTGTCTCCCI	CCAGAGCCTC	780
CCTCCGGACA	ATGAGTCCCC	CCTCTTGTCT	CCCACCCTGA	GATTGGGCAT	GGGGTGCGGT	840
GTGGGGGGCA	TGTGCTGCCT	GTTGTTATGG	GTTTTTTT	CGGGGGGGG	TGCTTTTTTC	900
TGGGGTCTTT	GAGCTCCAAA	AAATAAACAC	TTCCTTTGAG	GGAGAGCAA	AAAAAAAAA	960
AAAAAAAA	AAAAAAAA	AAAGAATTCO	CACCACA			996

[SEQUENCE TABLE]

SEQ ID NO: 1

SEQUENCE LENGTH: 180

SEQUENCE TYPE: Amino acid

TOPOLOGY: Linear

MOLECULE TYPE: Peptide SEQUENCE DESCRIPTION:

Met Ala Ser Thr Ser Tyr Asp Tyr Cys Arg Val Pro Met Glu Asp Gly

5 10 15

3 10 15

Asp Lys Arg Cys Lys Leu Leu Gly Ile Gly Ile Leu Val Leu Leu 20 25 30

Ile Ile Val Ile Leu Gly Val Pro Leu Ile Ile Phe Thr Ile Lys Ala
35 40 45

Asn Ser Glu Ala Cys Arg Asp Gly Leu Arg Ala Val Met Glu Cys Arg
50 55 60

Asn Val Thr His Leu Leu Gln Gln Glu Leu Thr Glu Ala Gln Lys Gly
65 70 75 80

Phe Gln Asp Val Glu Ala Gln Ala Ala Thr Cys Asn His Thr Val Met

85 90 95

Ala Leu Met Ala Ser Leu Asp Ala Glu Lys Ala Gln Gly Gln Lys Lys
100 105 110

Val Glu Glu Leu Glu Gly Glu Ile Thr Thr Leu Asn His Lys Leu Gln 115 120 125

Asp Ala Ser Ala Glu Val Glu Arg Leu Arg Arg Glu Asn Gln Val Leu 130 135 140

Ser Val Arg Ile Ala Asp Lys Lys Tyr Tyr Pro Ser Ser Gln Asp Ser 145 150 155 160

Ser Ser Ala Ala Pro Gln Leu Leu Ile Val Leu Leu Gly Leu Ser 165 170 175

Ala Leu Leu Gln

SEQ ID NO: 2

SEQUENCE LENGTH: 996

SEQUENCE TYPE: Nucleic acid

STRANDEDNESS: Double

TOPOLOGY: Linear

MOLECULE TYPE: cDNA to mRNA

METHOD FOR DETERMINING FEATURES: E

SEQUENCE DESCRIPTION:

(<i>3</i>	JAA1	IU A	լն ն	JA T	T AU	TT	JG TA	AT GA	AC TA	AT TU	iC AL	iA GT	G CO	CC AT	'G GAA	51
(GAC	GGG	GAT	AAG	CGC	TGT	AAG	CTT	CTG	CTG	GGG	ATA	GGA	ATT	CTG	GTG	99
(CTC	CTG	ATC	ATC	GTG	ATT	CTG	GGG	GTG	CCC	TTG	ATT	ATC	TTC	ACC	ATC	147
İ	AAG	GCC	AAC	AGC	GAG	GCC	TGC	CGG	GAC	GGC	CTT	CGG	GCA	GTG	ATG	GAG	195
•	TGT	CGC	AAT	GTC	ACC	CAT	CTC	CTG	CAA	CAA	GAG	CTG	ACC	GAG	GCC	CAG	243
ı	AAG	GGC	TTT	CAG	GAT	GTG	GAG	GCC	CAG	GCC	GCC	ACC	TGC	AAC	CAC	ACT	291
(GTG	ATG	GCC	CTA	ATG	GCT	TCC	CTG	GAT	GCA	GAG	AAG	GCC	CAA	GGA	CAA	339
4	AAG	AAA	GTG	GAG	GAG	CTT	GAG	GGA	GAG	ATC	ACT	ACA	TTA	AAC	CAT	AAG	387
(CTT	CAG	GAC	GCG	TCT	GCA	GAG	GTG	GAG	CGA	CTG	AGA	AGA	GAA	AAC	CAG	435
(GTC	TTA	AGC	GTG	AGA	ATC	GCG	GAC	AAG	AAG	TAC	TAC	CCC	AGC	TCC	CAG	483
(GAC	TCC	AGC	TCC	GCT	GCG	GCG	CCC	CAG	CTG	CTG	ATT	GTG	CTG	CTG	GGC	531
ı	CTC	AGC	GCT	CTG	CTG	CAG	TGA	GATC	CCA (GGAA	GCTG	GC A	CATC	TTGG	A AG	GTCCGTCC	589
•	TGCT	CGG	CTT '	TTCG	CTTG	AA C	ATTC	CCTT	G AT	CTCA	TCAG	TTC	TGAG	CGG	GTCA'	TGGGGC	649
	AAC	ACGG'	TTA (GCGG	GGAG	AG C	ACGG	GGTA	G CC	GGAG.	AAGG	GCC	TCTG	GAG	CAGG	TCTGGA	709
:	GGG	GCCA'	TGG (GGCA	GTCC	rg g	GTGT	GGGG	A CA	CAGT	CGGG	TTG	ACCC	AGG	GCTG	TCTCCC	769
	TCC	AGAG	CCT	CCCT	CCGG	AC A	ATGA	GTCC	c cc	СТСТ	TGTC	TCC	CACC	CTG	AGAT	TGGGCA	829
	TGG	GGTG	CGG	TGTG	GGGG	GC A	TGTG	CTGC	C TG	TTGT	TATG	GGT	TTTT	TTT	GCGG	GGGGGG	889
	TTG	CTTT	TTT	CTGG	GGTC'	TT T	GAGC	TCCA	A AA	AATA	AACA	CTT	CCTT	TGA	GGGA	GAGCAA	949
	AAA.	AAAA	AAA .	AAAA	AAAA.	AA A	AAAA	AAAA	A AA	AAGA	ATTC	CAC	CACA	L			996